Date:

Thursday, 16/11/2006 9:51:46 AM

User:

Linda Lacelle

Process Sheet

Customer

: CU-DAR001 Dart Helicopters Services

Job Number

: 29383A

Estimate Number P.O. Number

: 10300 : NIA

This Issue Prsht Rev.

: 16/11/2006

: NC

First Issue

: 09/11/2006

S.O. No. : 4102

Type

: MACHINED PARTS

: 29308A Previous Run

Written By

Checked & Approved By

Comment

: Est Rev:A

New Issue

05-11-06

Drawing Name

: FRAME

Part Number

: D32241 **Drawing Number**

D3224 REV A

Project Number Drawing Revision

Material **Due Date**

: 05/12/2006

Qty:

4 Um:

Each

Additional Product

JLM

Job Number:



Seq. #:

Description:

1.0

M2024T3S063

Total:

21.8400 sf(s)

5.4600 sf(s)/Unit 2024-T3 .063 thick aluminum sheet

Batch: M10(022 (i)

1E) SPP50121

2.0

WATER JET

Comment: Qty.:

FLOW WATER JET

2024-T3 .063 sheet



Comment: FLOW WATER JET

1-Cut as per Dwg D3224

Dwg Rev: A

Prog Rev: A

SAD



2-Deburr if necessary

INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE



QC8

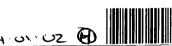
QC2

SECOND CHECK



4.0

3.0



Comment: SECOND CHECK

5.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Deburr





Page 1

Form: rprocess

| W/O: | _ | WORK ORDER CHANGES | | | | | | | | | |
|-----------|----|--------------------|--------|-----------------|----|--------|------------|---------------------|-------------------------------------|--------------------------|--|
| DATE STEP | | PROCEDURE CHANGE | | | | Ву | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector | |
| | | | ÷ | | | | | | | | |
| | | | | | | | | | | | |
| | | ## | | | | | | | : | | |
| Part No |); | : | PAR #: | Fault Category: | NO | R: Yes | No DQ | 4 : <u>£</u> | ⊉ Date: <u>∂</u> | 7/61/15 | |
| | | | | | | QA: | N/C Closed | d: | _ Date: _ | | |

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | | | | | |
|--------------|------|----------------------------------|----------------------|------------------------------|--------------|-----------|-----------------------|-------------------------|--|--|--|--|
| | | Description of NC | | Corrective Action Section B | Verification | Ammanal | | | | | | |
| DATE | STEP | Section A | Initial Chief Eng | Action Description Chief Eng | | Section C | Approval Chief Eng | Approval QC Inspecto | | | | |
| OE ALL | -2 | two deme nois on this piece | | | | | | | | | | |
| | • | (1/40 a. A. 1900) | | | 60 Will. | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | · | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

NOTE: Date & initial all entries

Date: Thursday, 16/11/2006 9:51:46 AM User: Linda Lacelle **Process Sheet** Customer: CU-DAR001 Dart Helicopters Services Drawing Name: FRAME Part Number: D32241 Job Number: 29383A Job Number: Description: Seq. #: **Machine Or Operation:** NC BRAKE BRAKE NC 6.0 Comment: NC BRAKE Form as per Dwg D3224 INSPECT WORK TO CURRENT STEP 7.0 QC5 Comment: INSPECT WORK TO CURRENT STEP 8.0 HAND FINISHING1 HAND FINISHING RESOURCE #1 Comment: HAND FINISHING RESOURCE #1 Chemical Conversion Coat as per QSI 005 4.1 INSPECT POWDER COAT/CHEMICAL CONVERSION 9.0 QC3 Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION 10.0 PACKAGING RESOURCE #1 PACKAGING 1 **Comment: PACKAGING RESOURCE #1** Identify and Stock Location: 11.0 QC21 Comment: FINAL INSPECTION/W/O RELEASE W Sadils Job Completion

| W /O: | | WORK ORDER CHANGES | CHANGES | | | | | | |
|--------------|------|--------------------|---------|--|-----|-------------------------------------|--------------------------|--|--|
| DATE | STEP | PROCEDURE CHANGE | | | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | : | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

| Part No: | _ PAR #: | Fault Category: | NCR: Yes No | DQA: | Date: |
|----------|----------|-----------------|-------------|--------|-------|
| | | | QA: N/C C | losed: | Date: |

| CR: | | | WORK ORD | ER NON-CONFORMANO | CE (NCR) | | | |
|------|------|-------------------|----------------------|------------------------------|----------------|------------------------|-----------------------|--------------|
| | | Description of NC | | Corrective Action Section B | | | | Approval |
| DATE | STEP | Section A | Initial Chief Eng | Action Description Chief Eng | Sign & Date | Verification Section C | Approval Chief Eng | QC Inspector |
| | | | · | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

TE: Date & initial all entries

Thursday, 11/9/2006 4:35:00 PM Kim Johnston User: **Process Sheet** : FRAME : CU-DAR001 Dart Helicopters Services **Drawing Name** Customer Job Number : 29383A : 10300 **Estimate Number Part Number** : D32241 P.O. Number : D3224 REV A S.O. No. : **Drawing Number** : 11/9/2006 This Issue : NC Project Number : N/A Prsht Rev. : MACHINED PARTS : A : // **Drawing Revision** First Issue Type : 29308A Material **Previous Run** Each **Due Date** : 12/5/2006 Qty: 4 Um: Written By Checked & Approved By 05\11-06 JLM : Est Rev:A New Issue Comment Additional Product Job Number: Description: **Machine Or Operation:** Seq. #: PURCHASING PG 1.0 Comment: PURCHASING Issue P/O: Email or Ship DXF file to vendor Laser Cut D3224-1 flat pattern per Dwg D3224 Possible Supplier: GFI Material release note is required D3224B Frame 2.0 1.0000 U(s)/Unit Total: 4.0000 U(s) Comment: Qty.: Frame PACKAGING RESOURCE #1 3.0 PACKAGING 1 Comment: PACKAGING RESOURCE #1 Receive & Inspect For Transit Damage Ensure material certification is attached DIMENSIONAL CHECK QC6 4.0 Comment: DIMENSIONAL CHECK SMALL FAB 1 SMALL & MEDIUM FAB RESOURCE 1 5.0 Comment: SMALL & MEDIUM FAB RESOURCE 1 Deburr

| W/O: | | WORK ORDER CH | WORK ORDER CHANGES | | | | | | | | | |
|---------|------|------------------------|--------------------|--------------|------------|-------------------------------|--------------------------|--|--|--|--|--|
| DATE | STEP | PROCEDURE CHANGE | Ву | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Part No | : | PAR #: Fault Category: | NCR: Yes | No DQ | 4 : | _ Date: _ | | | | | | |
| | | | QA: | N/C Close | d: | _ Date: _ | | | | | | |

| NCR: | | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | | | | | |
|------|------|-------------------|----------------------------------|------------------------------|----------------|--------------|-----------------------|--------------------------|--|--|--|--|--|
| | | Description of NC | | Corrective Action Section B | | Verification | Annroyal | Approval QC Inspector | | | | | |
| DATE | STEP | Section A | Initial Chief Eng | Action Description Chief Eng | Sign & Date | Section C | Approval Chief Eng | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | : | | | | | |
| | | | | | | | - | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

NOTE: Date & initial all entries

'Date: 'Thursday, 11/9/2006 4:35:00 PM **User:** Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FRAME

Job Number: 29383A

Part Number: D32241

Job Number:



Seq. #:

Machine Or Operation:

Description:

6.0

BRAKE NC

NC BRAKE



Comment: NC BRAKE

Form as per Dwg D3224

7.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

8.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

9.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location:

11.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



| W/O: | | V | WORK ORDER CHANGES | | | | | |
|---------|------|-----------------|--------------------|-------|--------------|-----|-------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CI | ANGE | Ву | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Part No | • | PAR #: Fault Ca | ategory: NCR: | Yes | No DQ | A: | _ Date: _ | |
| | | | | QA: N | I/C Close | d: | _ Date: _ | |

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | | | | |
|------|------|----------------------------------|----------------------|------------------------------|----------------|-----------|-----------|--------------------------|--|--|--|
| 2 | | Description of NC Section A | | Verification | Approval | Ammanual | | | | | |
| DATE | STEP | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | Section C | Chief Eng | Approval QC Inspector | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | · | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

NOTE: Date & initial all entries

| DART AEROSPACE LTD | Work Order: | 29383A |
|------------------------------|--------------|-------------|
| Description: Frame | Part Number: | D3224-1 |
| Inspection Dwg: D3224 Rev: A | | Page 1 of 1 |

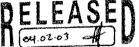
| | | ST ARTICLE II | NSPECTI | ON CHE | ECKLIST | | |
|--------------|-----------|---------------|---------|--------|-----------------|-------|--------|
| | _ | X First Arti | | | otype | | |
| Drawing | Tolerance | Actual | Accept | Reject | Method of | Co | mments |
| Dimension | lolerance | Dimension | Досерг | Reject | Inspection | | |
| 25.50 | +/-0.030 | | | | | | |
| 30.63 | +/-0.030 | | | | | | |
| 1.900 | +/-0.010 | | | | | | |
| 2.025 | +/-0.010 | | | | | | |
| 1.640 | +/-0.010 | | | | | | |
| 1.950 - | +/-0.010 | | | | | | |
| 2.080 | +/-0.010 | | | | | | |
| 0.063 | +/-0.010 | | | | | | |
| 2.383 | +/-0.010 | | | | | | |
| | | | | | | | |
| | · | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| 10.0 | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Measured by: | | Audited by: | | | Prototype Appro | oval: | N/A |
| Date: | | Date: | | | | Date: | N/A |

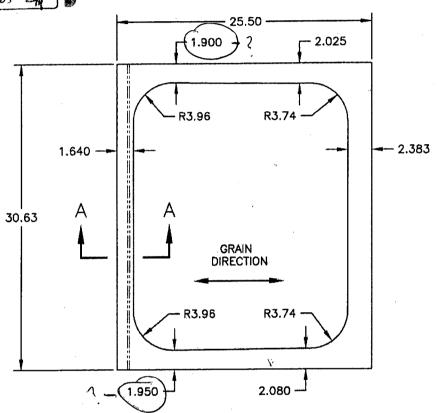
| Measured by: | Audited by | Prototype Approval: | N/A |
|--------------|------------|---------------------|-----|
| Date: | Date | Date: | N/A |

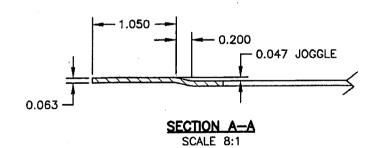
| Rev | Date | Change | | Revised by | Approved |
|-----|----------|-----------|------------------|------------|----------|
| Α | 04.10.05 | New Issue | P/O D412-709-011 | KJ/JLM | |



| | DESIGN | DRAWN BY | | ROSPACE LTD RY, ONTARIO, CANADA |
|---|----------|----------|-------------|------------------------------------|
| ļ | CHECKED | APPROVED | DRAWING NO. | REV. A |
| | 4 | d | D3224 | SHEET 1 OF 1 |
| | DATE | | TITLE | SCALE |
| | 03.10.21 | | FRAME | NTS |
| • | Δ | 03 10 21 | NEW ISSUE | |







D3224 - 1

SHOP COPY RETURN TO ENGINEERING

UNCONTROLLED COPY SUBJECT TO AMENDMENT

1) BREAK ALL UNMARKED SHARP EDGES 0.010 TO 0.020

2) MATERIAL: 2024-T3 (QQ-A-250/4), 0.063 THICK (REF. M2024T3S.063)
3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
4) ALL DIMENSIONS ARE IN INCHES

5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

WITHOUT NOTICE

Copyright © 2003 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

| DART AEROSPACE LTD | | Work Order: | 29383A |
|----------------------|---------|--------------|-------------|
| | 3. 4 | | |
| Description: LANK | \$ 2 44 | Part Number: | D3224-1 |
| | | | |
| Inspection Dwg: Rev: | | | Page 1 of 1 |

FIRST ARTICLE INSPECTION CHECKLIST

| | X | First Artic | ie X | Proto | type |
|------------|-----------|-------------|---------|--------|----------|
| Drawing | Tolerance | Actual | Accept | Reject | Method |
| D : | rolerance | Dimension | Acceb ! | Reject | Inspecti |

| | Drawing | Tolerance | Actual | Accept | Reject | Method of | Comments |
|---|-----------|--------------|-----------|--------|------------------|------------|----------|
| | Dimension | 1 Olei Bilde | Dimension | 1 | Reject | Inspection | |
| | 30.63 | 1/20.030 | 30.625 | | | Je measur | inc |
| | 1.640 | 1-0.010 | 1.648 | V | | Venn | |
| , | 1.950 | 1-0.010 | 1.952 | | | Vern | |
| | 2.080 | +- 0.016 | 2.088 | | | Vern | |
| | 2.383 | 1=0,00 | 2.390 | | | Vern | |
| | 2025 | ±0.010 | 2.021 | | | Vern | |
| į | 1,900 | -0.010 | 1,909 | | | Verus | |
| | 0.063 | \$ 0.010 | 0.066 | / | | vicesseris | |
| | 25.50 | ± 0.070 | 25.50 | | | tape | |
| Ĺ | | | Ç. | | | , | |
| | | | | | | | |
| | | • | | | | | |
| Ī | | | | | | | |
| | | | | | | | |
| | | | | · | , and the second | · | • |
| | | | | ` | | | |
| | | - | | | | | : |
| Ī | | | | | | | |
| | | | | | | - | |
| | · | | · | | | | |
| | | | | | | | |
| | | | | | | | |
| | i | | | | | | |

| Measured by: SAN | Audited by: | Prototype Approval: |
|------------------|----------------|---------------------|
| Date: 06:11:26 | Date: 07.01.02 | Date: 10//4 |

| Rev | Date | Change | Revised by | Approved |
|-----|------|-----------|------------|----------|
| Α | | New Issue | KJ/JLM | |

